



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/703,628	11/10/2003	Tsutomu Sato	ON2-US	2166
7590 04/05/2006			EXAMINER	
RADER, FISHMAN & GRAUDER PLLC 1233 20TH STREET N.W. SUITE 501 WASHINGTON, DC 20036			LEE, SIN J	
			ART UNIT	PAPER NUMBER
			1752	

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/703,628

Applicant(s)

SATO, TSUTOMU

Examiner

Sin J. Lee

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the amendment, previous 103(a) rejection on claim 1 over Goto et al'156 is hereby withdrawn.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugano et al (WO 02/41079 A2) in view of Takanezawa et al (JP 3-255185 and its JPO English abstract) or Uruno et al (JP 2002-180021).

The Japanese documents have been submitted for English translation. Only the English abstracts are available at this time. Sugano teaches a *positive type* photosensitive epoxy resin composition comprising an epoxy resin having two or more epoxy groups in one molecule and a multilayered *printed circuit board* of buildup mode using the composition as an insulating layer (see abstract). As preferred examples of such epoxy resin, Sugano teaches *phenol novolac type epoxy resin* (see pg.5, lines 3-5). Sugano also teaches (pg.8, last paragraph) the use of additives in his composition such as colorants (*phthalocyanine blue, phthalocyanine green*) as well as *adhesion improvers*. Sugano does not teach present component of (1)-(9). However, Takanezawa et al or Uruno et al teach the use of an adhesive composition for providing a *printed wiring board or a semiconductor device*, which is improved in the resistance to electrolytic corrosion and shelf stability and excellent in reliability and which contains *alkylphenolic resin or terpene phenolic novolac resin*. Therefore, it would have been

Art Unit: 1752

obvious to one skilled in the art to add an adhesive containing alkylphenolic resin or terpene phenolic novolak resin into Sugano's photosensitive epoxy resin composition in order to improve the resistance to electrolytic corrosion, shelf stability and reliability as taught by Takanezawa or Uruno. Therefore, Sugano in view of Takanezawa or Uruno render obvious present invention of claim 1.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akiyama et al (5,942,368).

Akiyama teaches a *positive-type* light sensitive composition (see col.22, lines 11-13), and Akiyama teaches the use of *binders* in his composition. As examples of such *binders*, Akiyama teaches (see col.23, lines 15-26, lines 42-43, col.24, lines 65-67, col.25, lines 1-30) *polyvinyl acetate* (such as *vinyl acetate/N-vinyl pyrrolidone copolymer*) as well as *epoxy resin prepared by condensation of bisphenol A with epichlorhydrine*. Akiyama also teaches the use of additives, such as inorganic powders (such as *titanium oxide*), in his light-sensitive composition (see col.25, lines 43-45, col.26, lines 2-4). Based on Akiyama's teaching, it would have been obvious to one skilled in the art to use *polyvinyl acetate* (such as *vinyl acetate/N-vinyl pyrrolidone copolymer*) and *epoxy resin prepared by condensation of bisphenol A with epichlorhydrine* as Akiyama's binders and use titanium oxide as Akiyama's inorganic powders in his positive-type light sensitive composition with a reasonable expectation of obtaining a solid dispersion composition having excellent dispersion properties and dispersion stability. Therefore, Akiyama's teaching renders obvious present invention of claim 1.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 6,911,300 B2.

Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reason:

Claim 2 of Pat. No. '300 states the following;

Art Unit: 1752

2. The photogravure plate making method according to claim 1, wherein said positive-type photosensitive composition comprises alkaline soluble organic high molecular substance including epoxy resin having phenolic hydroxyl group or reacted with phenolic hydroxyl group and photo-thermal conversion substance for absorbing infrared rays of an image exposing light source and converting it into heat, and as adherence characteristic reforming agents, the composition includes any one of

- (1) vinyl pyrrolidone/vinylacetate copolymers
- (2) polyvinylbutyral
- (3) styrene/maleic acid copolymers
- (4) vinylpyrrolidone/dimethylaminoethylmethacrylate copolymers
- (5) terpolymers of vinylpyrrolidone/vinylcaprolactam/dimethylaminoethylmethacrylate
- (6) terphenenphenolic resin
- (7) alkylphenolic resin
- (8) polyvinylformal resin
- (9) melamine/formaldehyde resin
- (10) polyvinyl acetate, and
- (11) ketone resin.

and thus renders obvious present invention of claim 1.

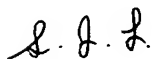
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is 571-272-1333. The examiner can normally be reached on Monday-Friday from 9:00 am EST to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

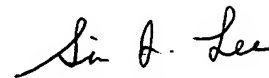
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 1752

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Lee
April 1, 2006



SIN LEE
PRIMARY EXAMINER